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Pre-Remedial
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L1190400008--Madison County
Jennison-Wright Corporation
ILD006282479
SF/HRS

AA 10/25/91
approved

969692



CERCLA

Expanded Site Inspection Report



Illinois Environmental
Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276



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1. INTRODUCTION

On January 24, 1991, the Illinois Environmental Protection Agency's (IEPA) Pre-Remedial Program was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct an Expanded Site Inspection (ESI) of the Jennison-Wright Corporation facility in Granite City, Illinois.

The site was initially placed on CERCLIS (Comprehensive Environmental Response, Compensation and Liability Act Information System) in December of 1983 as a result of a request for discovery action initiated by the United States Environmental Protection Agency. The facility received its initial CERCLA evaluation in the form of a Preliminary Assessment (PA) report that was completed by Kenneth Page of the Illinois EPA in January of 1986. In November 1988, the Illinois EPA's Pre-Remedial Program prepared and submitted to the Region V offices of the U.S. Environmental Protection Agency a screening site inspection work plan for the Jennison-Wright facility. The sampling portion of the screening site inspection was conducted on November 29, 1988, when the sampling team collected a total of two groundwater, two wipe and ten soil samples. The screening site inspection report was submitted to U.S. EPA in April of 1989, with the draft report approved final in June of 1990. In July of 1991, the Illinois EPA's Pre-Remedial Program prepared and submitted to the Region V offices of the U.S. Environmental

Protection Agency an expanded site inspection work plan for the Jennison-Wright facility. The sampling portion of the expanded site inspection was conducted on July 30 and 31, 1991, when the sampling team collected a total of eighteen soil samples.

The purpose of an expanded site inspection is to gather all the additional information necessary to develop a CERCLA Hazard Ranking Scoring package, for sites to be placed on the federally sponsored National Priorities List. The information needed includes: identify targets at risk to contaminants, a determination of sources responsible for contaminants, geologic and demographic information, and any other data gaps left after the Screening Site Inspection was conducted.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section includes information obtained over the course of the formal CERCLA Expanded Site Inspection investigation, the CERCLA Screening Site Inspection and other previous Illinois Environmental Protection Agency activities involving this site.

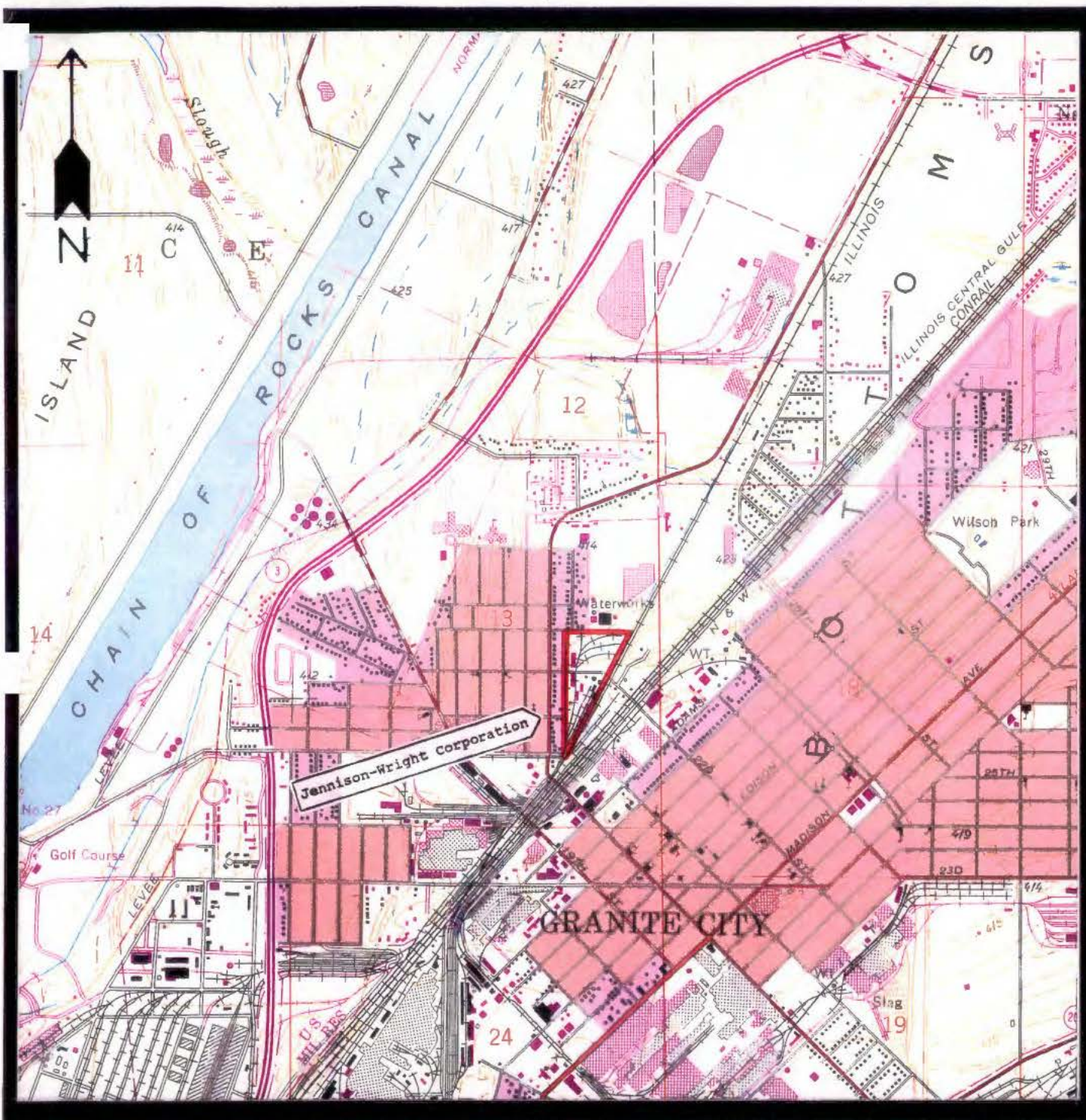
2.2 SITE DESCRIPTION

The Jennison-Wright property occupies approximately 26 acres of land in Granite City, Illinois in Madison County (see Figure 2-1 and 2-2). The facility is located one-half block east of Missouri Avenue, between 20th and 23rd Streets. The plant is situated in a densely populated urban setting. The site specific location is in the Southeast 1/4 of Section 13, Township 3 North, Range 10 West. A 4-mile radius map of lands surrounding the Jennison-Wright Corporation site is provided in Appendix A of this report.

The Jennison-Wright site is an inactive facility where railroad ties and wood blocks were treated with creosote, pentachlorophenol and zinc naphthenate. The site is divided into two parts by 22nd Street, with the north part used for tie trimming, treated tie off-loading and treated tie storage. (The treated ties were allowed to drip onto the ground without any type of containment system to collect the



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY	SITE NAME: Jennison-Wright SITE ID #006282479
ILLINOIS STATE MAP	
LEGEND: ● Site Location	



Source: IEPA, 1991. Base Map: USGS, 1982 Granite City, IL Quadrangle.

1" = 2000 Feet

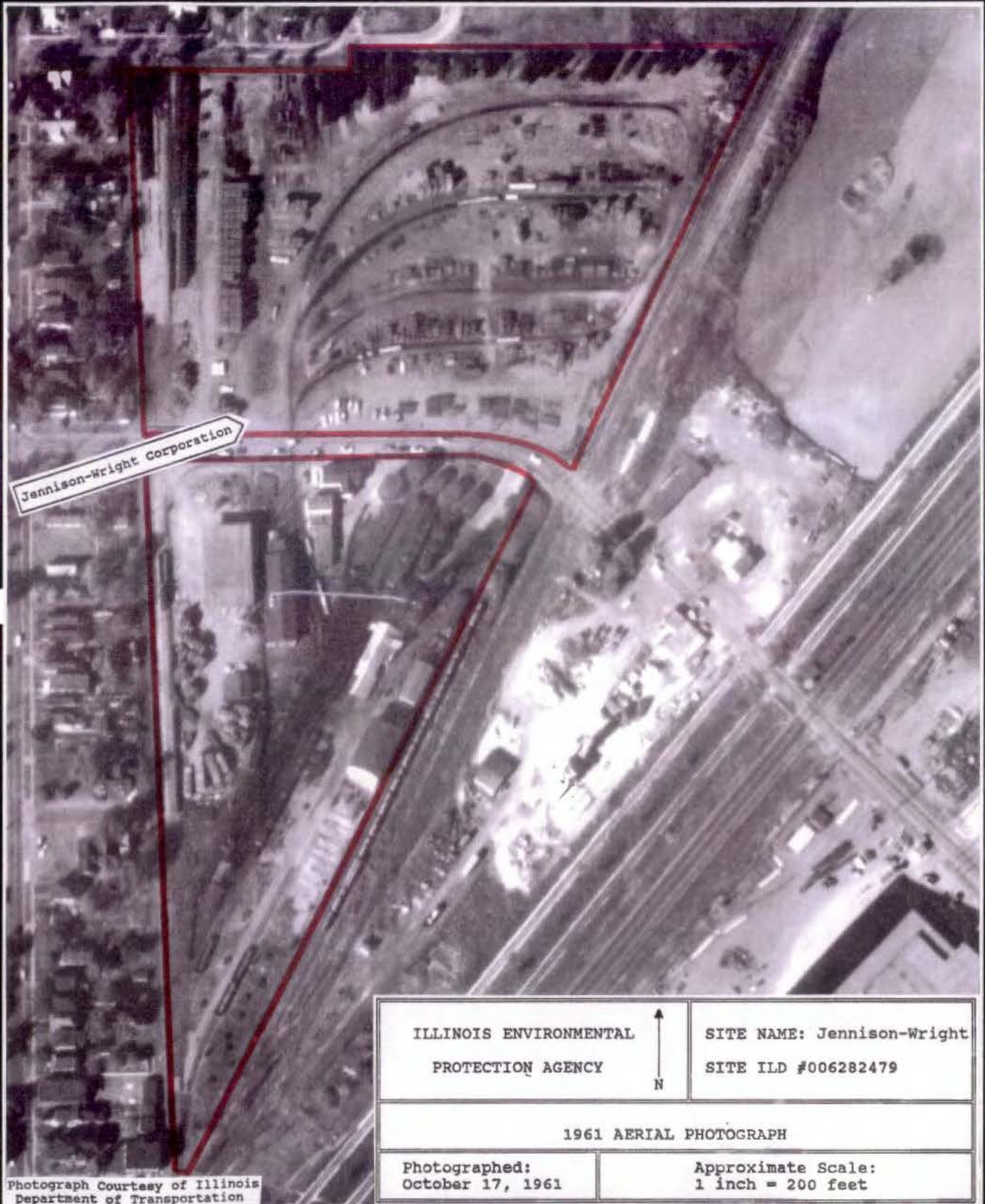
TOPOGRAPHIC MAP

drippings). The south side of the facility was where the railroad ties and wood blocks would be pressure treated with either creosote, pentachlorophenol or zinc naphthenate. Structures currently identified on-site include, two above ground tanks (one with a square cut in the side), one buried tank car, one above ground tank car, an office building, warehouse, two silos containing a clay like substance (thought to be montmorillonite), employee locker/shower building, the old boiler building, a concrete slab that was located under the pressure treatment cylinders, railroad tracks, piles of old metal equipment and pipes, wood block floors where buildings once stood, drums marked Kreolite and sodium metal, two buried lagoons, asbestos piles, stacks of pentachlorophenol and creosote treated wood blocks, an old waste disposal area (actually extends off-site) and other miscellaneous items that have not been taken by scavengers (refer to Figures 2-3, 2-4, 2-5, 2-6 and 2-7 for a review of aerial photographs of the site).

2.3 SITE HISTORY

The facility began operations around 1915 under the name of Midland Creosoting Company, with Midland Creosoting (an Ohio Corporation) selling the site in 1940 to The Jennison-Wright Corporation (also an Ohio Corporation). On September 29, 1981, Jennison-Wright entered into a Warranty Deed with 2-B-J.W., Incorporated for the facility located in Granite City, Illinois. On October 1, 1981, 2-B-J.W., Incorporated





ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY



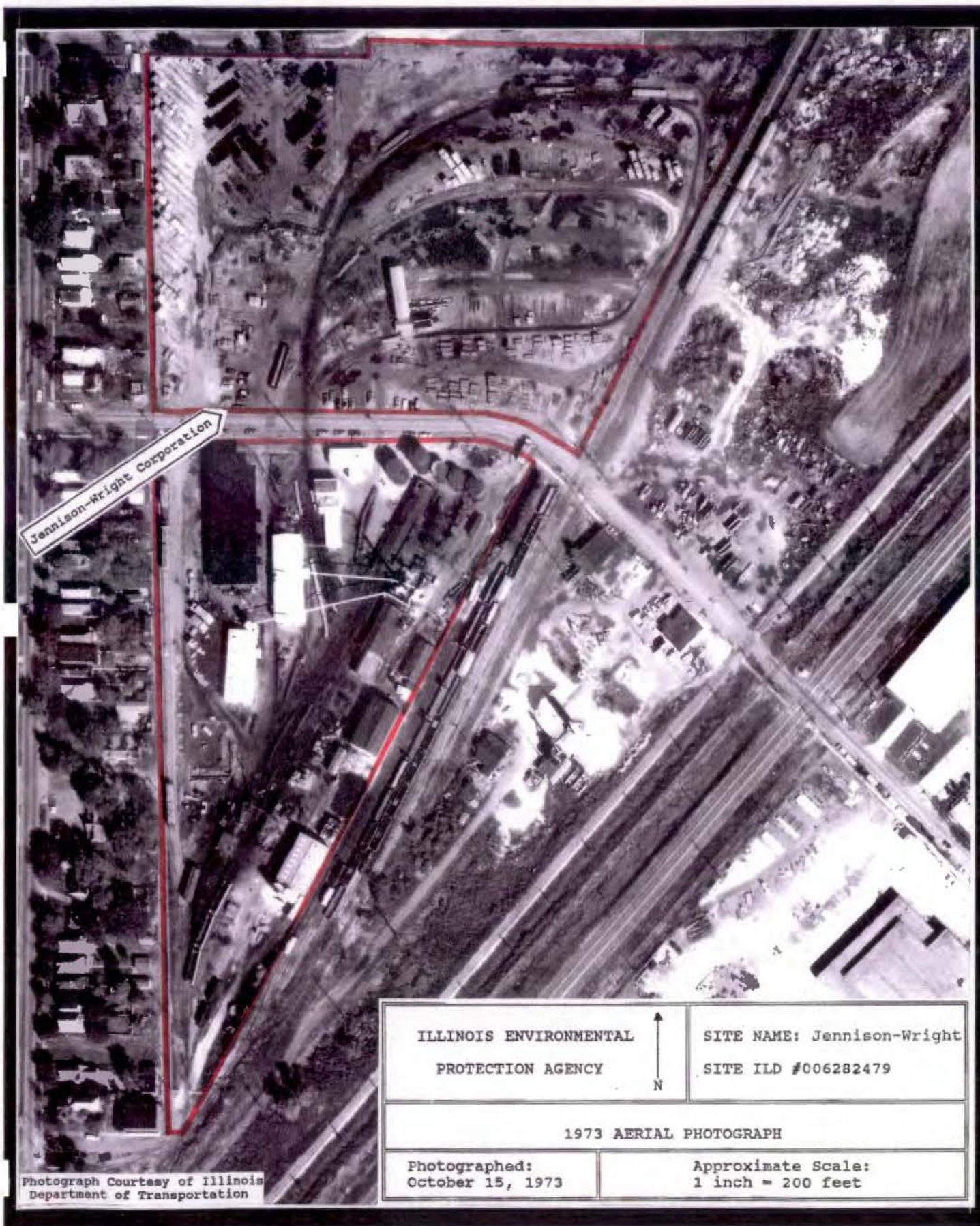
SITE NAME: Jennison-Wright
SITE ILD #006282479

1961 AERIAL PHOTOGRAPH

Photographed:
October 17, 1961

Approximate Scale:
1 inch = 200 feet

Photograph Courtesy of Illinois
Department of Transportation



ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY



SITE NAME: Jennison-Wright
SITE ILD #006282479

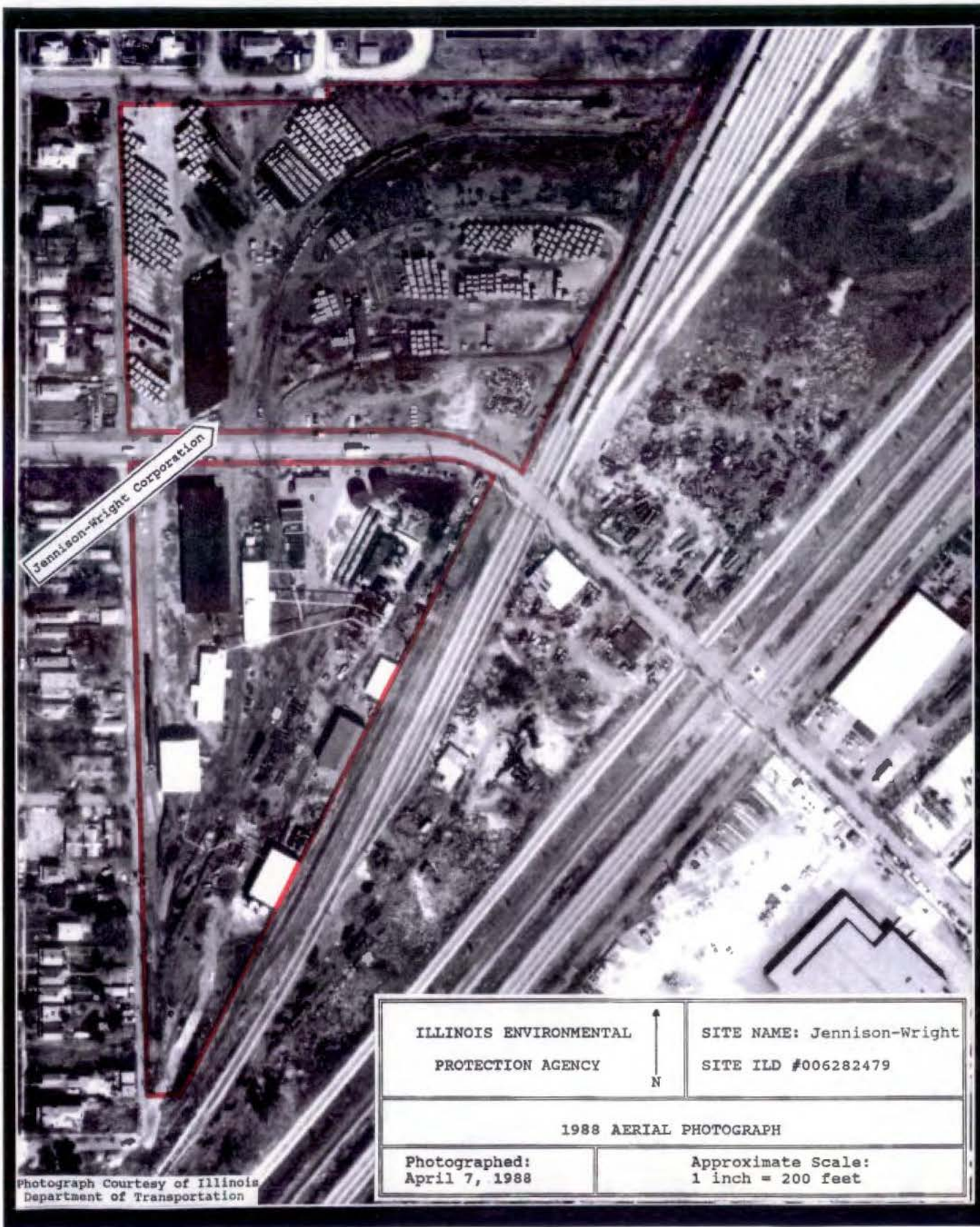
1973 AERIAL PHOTOGRAPH

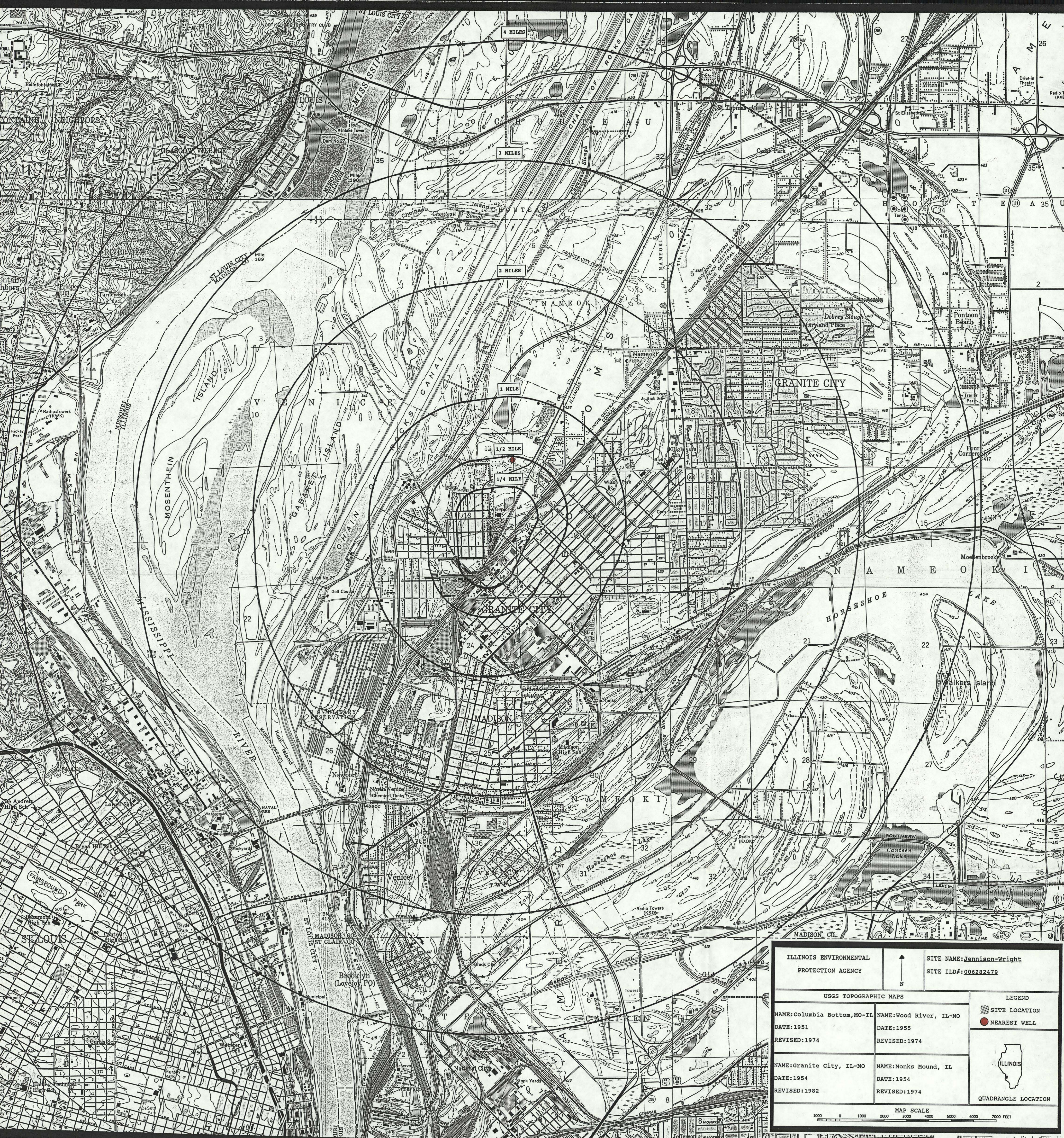
Photographed:
October 15, 1973


Approximate Scale:
1 inch = 200 feet

Photograph Courtesy of Illinois
Department of Transportation







ILLINOIS ENVIRONMENTAL PROTECTION AGENCY		N	SITE NAME:Jennison-Wright SITE ILD#:006282472	
USGS TOPOGRAPHIC MAPS			LEGEND	
NAME:Columbia Bottom,MO-IL DATE:1951 REVISED:1974		NAME:Wood River, IL-MO DATE:1955 REVISED:1974		
NAME:Granite City, IL-MO DATE:1954 REVISED:1982		NAME:Monks Mound, IL DATE:1954 REVISED:1974		
MAP SCALE 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET		QUADRANGLE LOCATION 		

entered into a Mortgage Deed and Security Agreement with J. W. Liquidating Corporation, for the sale of the facility. The J. W. Liquidating Corporation continued operations at the site until filing for bankruptcy in November, 1989. An auction was held in August 1990 to sell equipment and any other saleable items. Currently the facility is held in trust by Charles Tricarichi, Federal Bankruptcy Trustee, United States Bankruptcy Court, Northeast District of Ohio, Eastern Division. Scavengers have been seen illegally on-site gathering saleable items of metal and aluminum.

The facility has been involved with the treatment of wood products (railroad ties and wood block flooring) with either creosote, pentachlorophenol or zinc naphthenate. The creosote process had been virtually the same since 1915, except for the modernization of the pressure treatment area in 1987. The pentachlorophenol process apparently began in the early 1970's and continued until 1984, when the zinc naphthenate process replaced the pentachlorophenol treatment. Beside the treatment of wood products, an asphalt sealer was also manufactured on-site. The sealer, called "Jennite", was manufactured using coal tar derivatives and montmorillonite clay. The process began in the early 1960's and continued until the facility filed for bankruptcy.

Before J. W. Liquidating ownership, several areas of waste disposal were utilized by the Jennison-Wright Corporation. Prior to 1958 and lasting through at least 1973, an area on the eastern edge of the facility and south

of 22nd Street was used for the disposal of creosote contaminated wastewater. This lagoon was filled in with dirt, bricks, and other materials sometime after 1973. A second lagoon area was filled with creosote contaminated wastewater, waste coal tar pitch and other materials sometime between 1961 and 1973. This area was located on the eastern boundary of the site, near the Jennite process area. This area was filled with soil prior to 1981, but a black tar-like substance has been observed oozing out of the ground during hot weather. A third area located on the northeast corner of the site was also used for the disposal of creosote contaminated wastewater. This area included the railroad ditch outside of the property boundaries and received waste prior to 1973. The facility ceased using this area prior to 1981, but creosote contaminated run-off water from the treated tie storage area continued to flow into this area.

An initial site assessment was conducted by Ecology and Environment (E & E) Incorporated in 1984, to evaluate the extent of contamination in the soil and groundwater on-site. E & E installed 11 monitoring wells and three soil borings to determine site geology, groundwater flow directions and groundwater quality. The report indicated no off-site migration of contaminants, but did indicate soil contamination down to 9 feet below the surface in areas of product transportation and storage (E & E, 1985).

Jennison-Wright, after comments from the Illinois EPA on E & E's report, hired Woodward-Clyde to conduct an extensive

investigation of the plant. In 1987, Woodward-Clyde Consultants (WCC) began a Phase II assessment of the Jennison-Wright facility, to better define the extent of contamination and subsurface conditions. The assessment included the installation of 16 monitoring wells and the chemically analyzing of soil from 33 borings (29 on-site and 4 off-site).

The Illinois EPA Pre-Remedial Program conducted a screening site inspection of the Jennison-Wright facility on November 29, 1988. The inspection included ten soil samples, two wipe samples and two groundwater samples. The soil samples were collected in three residential yards, the water company berm, a nearby park and the lagoon areas. The two water samples were collected from two residential wells just west of the facility. The summary of groundwater, soil and wipe samples collected during the SSI are provided in Table 2-1.

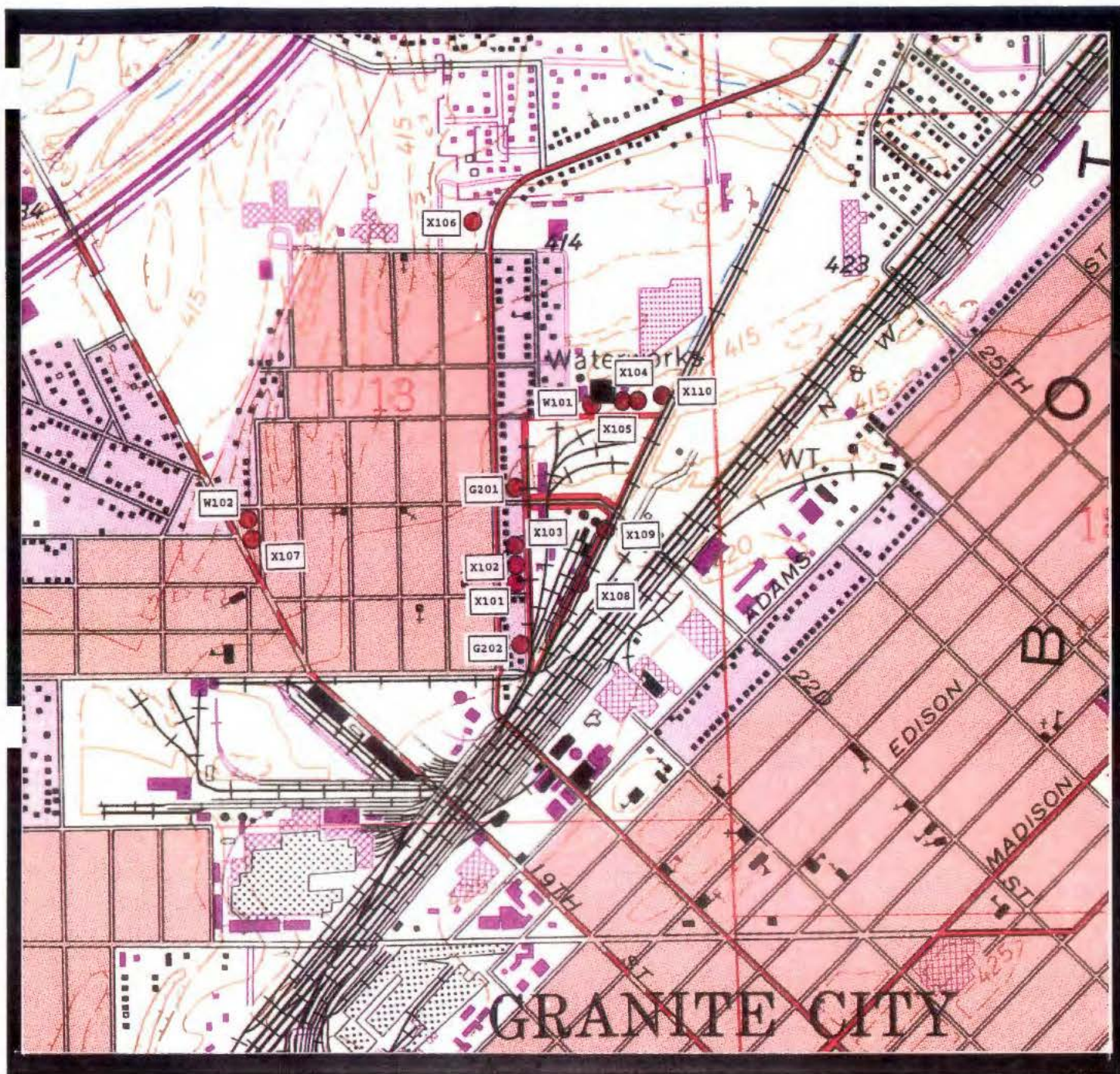
TABLE 2-1
ANALYTICAL SUMMARY

1988 Screening Site Inspection Results

SAMPLING POINT	X101	X102	X103	X104	X105	X106	X107	X108	X109	X110	G201	G202	V101	V102
	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88	11-29-88
VOLATILES														
Methylene Chloride	3400.000 #	38.000 #	13.000 #	25.000 #	2.200 #	4.000 #	2.000 #	30.000 #	52.000 #	44.000 #	1.300 #	6.700 #	--	--
Acetone	1600.000 #	2.000 #	8.800 #	6.400 #	8.100 #	7.800 #	5.100 #	3.400 #	2.700 #	4.800 #	2.300 #	76.000 #	--	--
2-Butanone	140.000 J	1.600 J	--	2.700 J	1.600 J	2.700 J	2.200 J	--	--	3.700 J	--	--	--	--
Xylenes (total)	--	--	--	--	--	--	--	--	--	--	--	1.600 J	--	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)
PESTICIDES														
Heptachlor Epoxide	40.000 J	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane-alpha	450.000	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane-gamma	500.000	--	--	--	--	--	--	--	--	--	--	--	--	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)
SEMI-VOLATILES														
Phenol	--	--	39.000 J	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	--	--	--	38.000 J	54.000 J	--	--	--	--	--	--	0.790 J	--	--
Benzyl Alcohol	--	--	--	--	49.000 J	--	--	--	--	--	--	--	--	--
Naphthalene	240.000 J	120.000 J	52.000 J	46.000 J	47.000 J	9.000 J	9.000 J	1300.000 J	2700.000 J	11000.000 J	--	--	0.360 J	--
2-Methylnaphthalene	200.000 J	--	62.000 J	25.000 J	25.000 J	7.000 J	13.000 J	490.000 J	560.000 J	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	400.000 J	--	--	--	--	--
Acenaphthene	--	--	--	--	12.000 J	9.000 J	--	2100.000 J	420.000 J	28000.000 J	--	--	0.180 J	--
Dibenzofuran	--	--	--	--	24.000 J	9.000 J	--	1800.000 J	2000.000 J	10000.000 J	--	--	0.430 J	0.310 J
Fluorene	--	--	--	--	10.000 J	6.000 J	--	4200.000 J	200.000 J	--	--	--	0.180 J	--
Pentachlorophenol	--	2600.000 J	--	--	11.000 J	--	--	--	--	28000.000 J	--	--	--	--
Phenanthrene	1000.000 #	1100.000 #	410.000 #	110.000 #	110.000 #	130.000 #	180.000 #	28000.000 #	12000.000 #	160000.000 #	--	--	--	2.100
Anthracene	--	560.000 J	--	24.000 J	21.000 J	31.000 J	26.000 J	35000.000 J	2400.000 J	410000.000 J	--	--	--	--
Diethylphthalate	--	--	--	33.000 J	27.000 J	21.000 J	24.000 J	--	--	16000.000 J	--	--	0.210 J	--
Di-n-butylphthalate	230.000 #	250.000 #	79.000 #	170.000 #	160.000 #	87.000 #	89.000 #	210.000 #	150.000 #	--	--	--	0.250 J	0.290 J
Fluoranthene	1400.000 #	1400.000 #	940.000 #	130.000 #	200.000 #	150.000 #	170.000 #	44000.000 #	24000.000 #	190000.000 #	--	--	--	3.000
Pyrene	1400.000 #	1700.000 #	850.000 #	110.000 #	150.000 #	150.000 #	140.000 #	35000.000 #	25000.000 #	150000.000 #	--	--	2.300	--
Butylbenzylphthalate	--	760.000 J	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	1700.000 J	470.000 J	230.000 J	90.000 J	150.000 J	--	14000.000 J	14000.000 J	530000.000	--	--	--	--
one	--	3100.000 J	750.000 J	--	240.000 J	--	--	16000.000 J	28000.000	580000.000	--	--	1.700	--
-(Ethylhexyl)phthalate	570.000 J	--	240.000 J	--	--	1200.000	6600.000	--	27000.000	--	--	--	--	--
(b)fluoranthene	820.000 J	--	480.000 J	--	160.000 J	42.000 J	--	7000.000 J	21000.000	190000.000 J	--	--	--	--
benzo(k)fluoranthene	--	780.000 J	--	--	80.000 J	65.000 J	--	--	16000.000	--	--	--	--	--
benzo(a)pyrene	310.000 J	--	470.000 J	--	--	--	--	8000.000 J	14000.000	140000.000 J	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	21000.000	--	--	--	--	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)
INORGANICS														
Aluminum	10491.000	13799.000	9487.000	9719.000	8430.000	6877.000	6883.000	5839.000	3834.000	3668.000	63.000 #	--	#	#
Antimony	2.400 #	4.800 #	3.400 #	--	--	--	--	--	--	--	--	--	--	--
Arsenic	22.900	43.500	21.200	7.300 #	7.700 #	5.800 #	9.300 #	6.000 #	7.980 #	11.800	3.000 #	2.000 #	#	#
Barium	400.000	921.000	532.000	170.600 #	171.000 #	130.000 #	153.000 #	156.000 #	176.000 #	108.000 #	81.000 #	73.000 #	--	--
Beryllium	1.490 #	1.200 #	1.340 #	0.850 #	0.790 #	0.740 #	0.800 #	0.780 #	0.590 #	0.720 #	0.300 #	0.500 #	--	--
Cadmium	5.740	6.600	3.890 #	2.540 #	7.200	--	--	--	--	2.400 #	3.200 #	3.700 #	#	#
Calcium	15250.000	23570.000	7717.000	5086.000	5932.000	6451.000	5600.000	20967.000	13487.000	26685.000	143000.000	229000.000	--	--
Chromium	36.200	80.800	28.300	19.600	18.900	13.200	17.200	26.600	18.000	38.300	8.000 #	13.000	A	A
Cobalt	11.800 #	8.700 #	6.000 #	4.800 #	4.100 #	4.180 #	4.980 #	5.300 #	4.400 #	--	12.000 #	11.600 #	--	--
Copper	120.000	271.000	87.200	29.800	29.800	17.100 #	23.500	12.900	23.800	165.000	3.000 #	5.400 #	#	#
Iron	35640.000	41900.000	29500.000	19190.000	17142.000	12814.000	15105.000	18355.000	19257.000	11573.000	83.000 #	--	--	--
Lead	840.000	2340.000	632.000	134.000	158.000	131.000	299.000	27.800	69.400	271.000	18.000	11.000	P	P
Magnesium	3499.000 #	3706.000 #	1874.000 #	2695.000 #	2607.000 #	2443.000 #	2231.000 #	5950.000 #	3332.000 #	6070.000	31600.000	59900.000	--	--
Manganese	717.000	929.000	549.000	529.000	521.000	313.000	450.000	821.000	786.000	674.000	558.000	1120.000	L	L
Mercury	0.650	0.330	0.340	--	--	--	--	--	--	0.510	--	0.200	--	--
Nickel	26.900 #	29.700 #	22.800 #	16.900 #	16.800 #	11.300 #	133.000	16.900 #	14.400 #	12.900 #	32.000 #	28.900 #	E	E
Potassium	2120.000 #	1657.000 #	1500.000 #	1741.000 #	1584.000 #	1268.000 #	1419.000 #	814.000 #	933.000 #	395.000 #	4638.000 #	8790.000	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	10.000	3.000 #	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	6.700 #	--	--
Sodium	276.000 #	237.000 #	127.000 #	2.900 #	--	--	--	--	--	--	31700.000	30400.000	--	--
Thallium	--	--	--	--	--	--	--	--	--	1.270	--	--	--	--
Vanadium	37.900 #	42.200 #	29.900 #	28.900 #	27.400 #	20.000 #	22.400 #	42.900 #	26.100 #	34.700 #	3.000 #	8.000 #	--	--
Zinc	653.000	1543.000	780.000	235.000	243.700	159.900	236.000	68.500	194.000	419.000	313.000	21.000	--	--
Cyanide	1.300 #	1.400 #	0.800 #	0.300 #	0.400 #	0.300 #	0.300 #	0.100 #	0.200 #	2.000 #	7.000 #	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	300000.000	330000.000	--	--
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	--	--

TABLE 2-1
ANALYTICAL SUMMARY
1988 Screening Site Inspection Results

SAMPLING POINT	X101 11-29-88	X102 11-29-88	X103 11-29-88	X104 11-29-88	X105 11-29-88	X106 11-29-88	X107 11-29-88	X108 11-29-88	X109 11-29-88	X110 11-29-88	G201 11-29-88	G202 11-29-88	V101 11-29-88	V102 11-29-88
SPECIAL ANALYSIS														
2378-TCDD	--	--	--	--	--	--	--	--	7.351	--	--	--	--	--
12378-PeCDD	--	0.099	--	--	--	--	--	--	78.225	0.105	--	--	--	--
123478-HxCDD	--	0.331	--	--	--	--	--	--	523.187	--	--	--	--	--
12367-HxCDD	69.655	2.279	9.517	12.833	10.932	--	--	41.277	2104.422	13.340	--	--	--	--
123789-HxCDD	--	0.790	7.550	--	8.811	--	--	--	1932.908	4.923	--	--	--	--
1234678-HpCDD	3803.006	197.765	407.301	684.737	574.798	79.217	61.052	5814.239	201585.693	1253.422	--	--	0.340	0.346
OCDD	53809.151	2125.451	5558.448	11022.075	9034.390	1066.862	708.331	101074.080	760936.175	6744.598	--	--	4.651	1.671
2378-TCDF	27.930	0.076	11.014	5.444	--	--	--	--	--	0.057	--	--	--	--
12378-PeCDF	--	0.041	3.799	--	--	--	--	--	--	0.298	--	--	--	--
23478-PeCDF	--	--	2.672	--	--	--	--	--	--	0.371	--	--	--	--
123478-HxCDF	--	0.379	8.937	8.481	6.185	--	3.705	--	117.064	3.986	--	--	--	--
123678-HxCDF	--	--	3.717	--	--	--	--	--	--	0.493	--	--	--	--
234678-HxCDF	--	--	4.955	--	--	--	--	--	42.005	1.302	--	--	--	--
1234678-HpCDF	489.392	13.779	--	86.182	--	18.014	--	244.915	5127.828	122.964	--	--	--	0.078
1234789-HpCDF	--	--	--	--	--	--	--	--	327.047	7.731	--	--	--	--
OCDF	2745.572	92.634	249.599	402.648	263.358	--	38.474	29041.420	34922.855	--	--	--	--	--
Total TCDD	20.296	0.202	19.509	--	5.382	3.606	7.354	--	79.463	0.103	--	--	--	--
Total PeCDD	--	0.407	3.878	9.095	7.604	--	4.895	--	1837.862	1.590	--	--	--	--
Total HxCDD	564.962	10.207	95.583	127.058	119.046	--	18.725	414.598	41946.440	129.629	--	--	--	--
Total HpCDD	10135.083	304.782	998.169	2066.205	1768.459	207.476	147.267	19302.749	537156.270	2943.278	--	--	0.740	0.556
Total TCDF	105.819	0.382	50.212	18.081	4.441	--	11.330	--	--	0.338	--	--	--	--
Total PeCDF	165.456	1.318	46.064	19.586	9.863	--	15.439	--	74.027	7.289	--	--	--	--
Total HxCDF	548.486	9.917	53.984	121.500	66.990	18.975	32.224	182.427	4011.346	87.182	--	--	--	--
Total HpCDF	1937.911	81.219	136.563	330.970	182.915	55.592	--	1484.578	29153.654	647.731	--	--	--	--
	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ppt)	(ng/cm)	(ng/cm)



Source: IEPA, 1991. Base Map: USGS, 1982 Granite City, IL-MO Quadrangle.

1" = 2000 Feet

FIGURE 2-8 1988 SSI SAMPLING LOCATIONS

3. EXPANDED SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

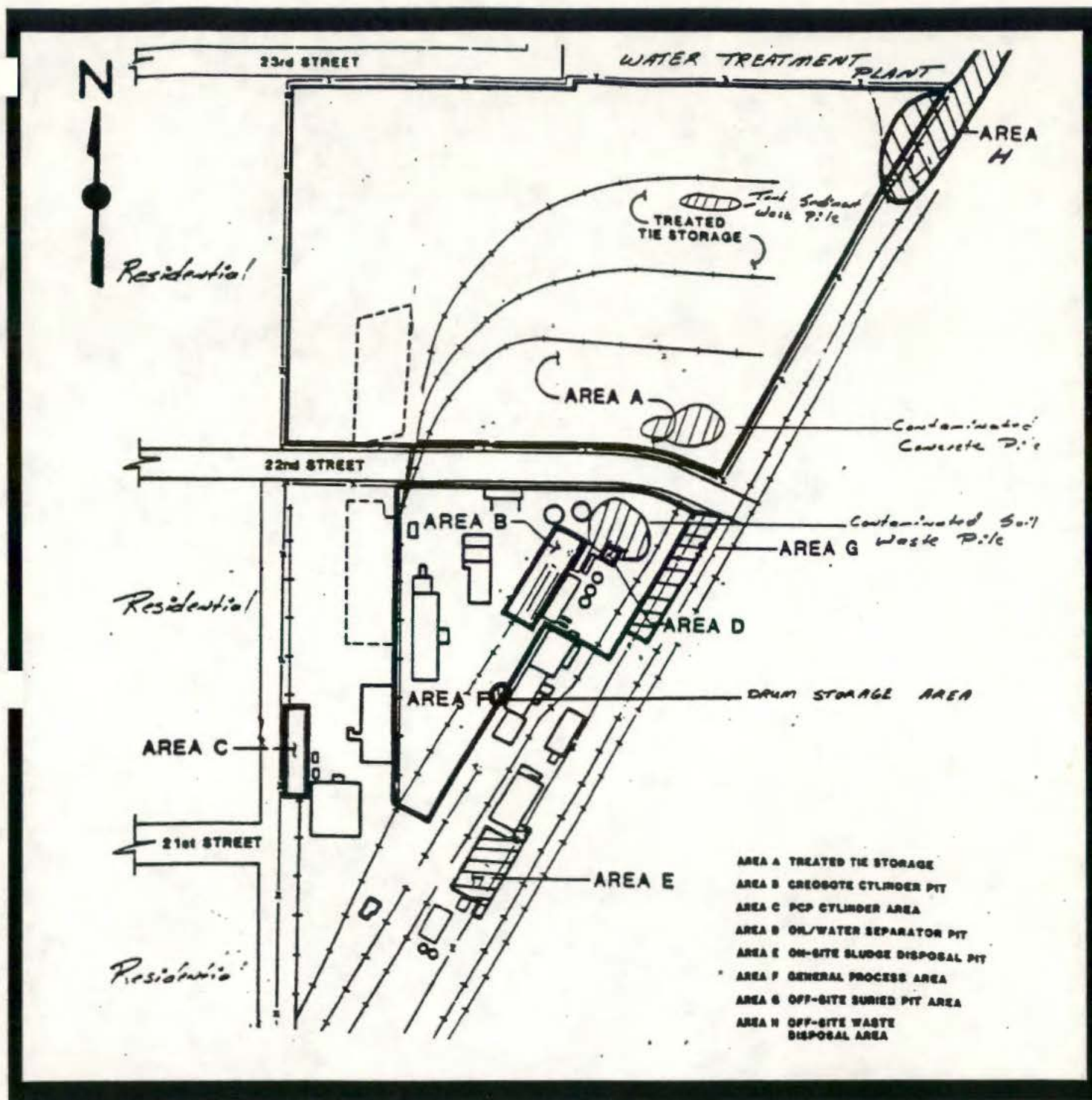
This section outlines procedures utilized and observations made during the CERCLA Expanded Site Inspection conducted at the Jennison-Wright facility. Specific portions of this section contain information pertaining to the site reconnaissance inspection and field sampling procedures. The Expanded Site Inspection for the Jennison-Wright facility was conducted in accordance with the site inspection work plan, which was developed and submitted to the U.S. EPA Region V offices prior to the initiation of field activities.

3.2 RECONNAISSANCE INSPECTION

On June 26, 1991, Mr. Greg Dunn, Mr. Steve Davis, Mrs. Virginia Wood and Ms. Susan Schroering, of the Illinois Environmental Protection Agency, conducted the CERCLA Expanded Site Inspection reconnaissance inspection of the Jennison-Wright facility. The reconnaissance included a visual inspection of the facility to delineate the extent of their activities, identify potential sampling locations, gain access to residential yards for sampling and identify appropriate health and safety requirements. During the reconnaissance visit, it was determined that Level D inspection attire could be worn during the sampling activities on the north side of the facility unless air

monitoring equipment detected any concentrations over background. The sampling activities on the south side of the facility required modified Level C protection due to the presence of asbestos on-site. Modified Level C includes two tyveks (one must have a hood), disposable gloves and a full face respirator with cartridges for an asbestos environment.

The reconnaissance confirmed the fact that the Jennison-Wright facility is located one-half block east of Missouri Avenue, between 20th and 23rd Streets in Granite City, Illinois. Current land use in proximity to the site is primarily residential to the north and west, with industrial type areas to the south and east. The surface topography is relatively flat, with the north side of the site sloping toward the railroad ditch at the northeast corner of the site. (The railroad ditch is not known to flow into any surface waters). The south half of the site has no apparent drainage system. The site perimeter is fenced with no additional security measures to deter site access. Three areas of past waste disposal are located outside the facility boundaries and are accessible to people and animals. The Jennison-Wright facility is currently bordered by the Illinois Terminal Railroad on the east, residential areas on the west, 20th Street on the south and 23rd and the Illinois American Water Company on the north (see Figure 3-1 for site details). The facility is located within a densely populated area of Granite City, Illinois.



Source:IEPA,1988.

Not to scale.

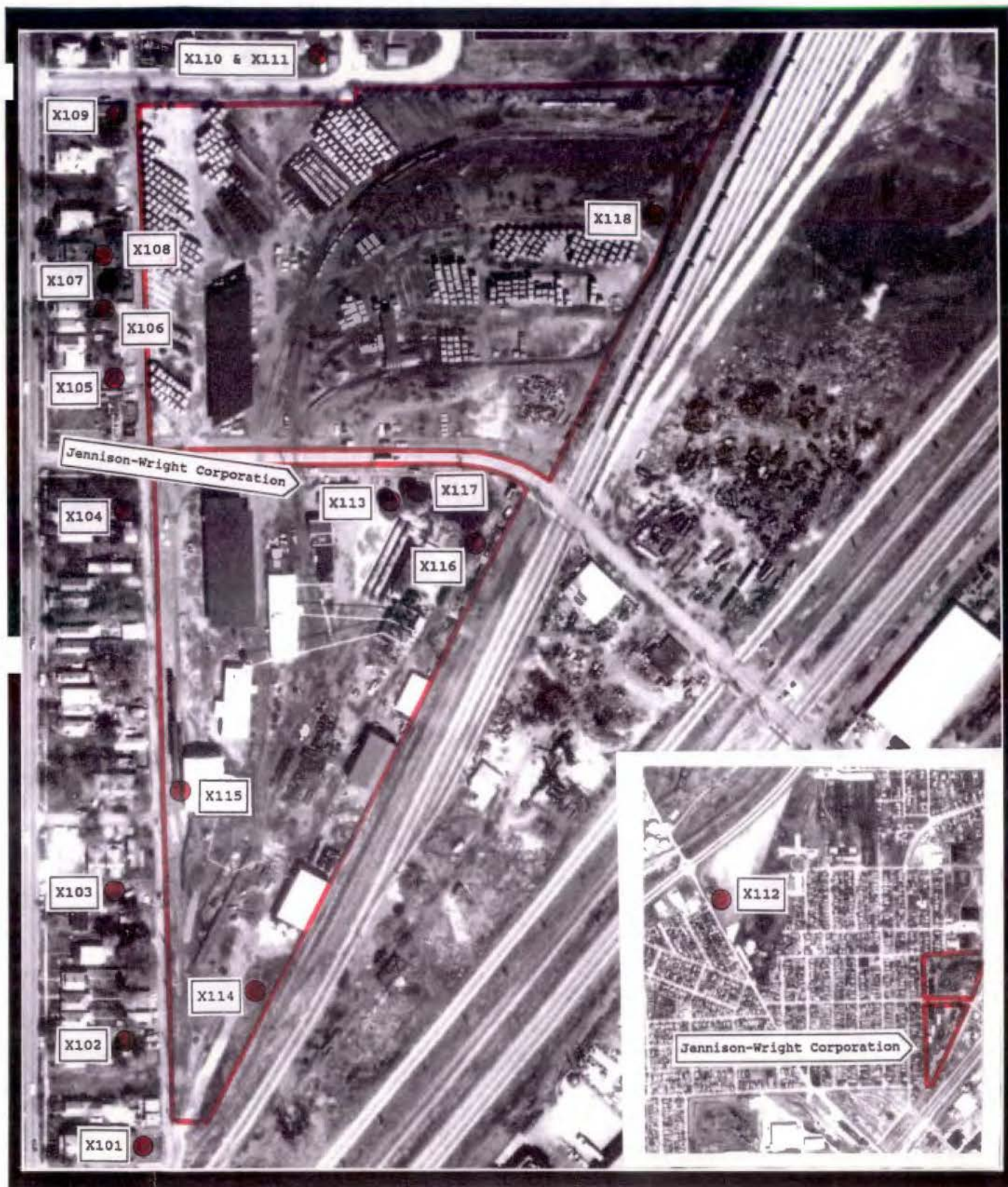
FIGURE 3-1 SITE FEATURES

3.3 SAMPLING PROCEDURES

The field activities portion of the CERCLA Expanded Site Inspection included the collection of eighteen soil samples by the Illinois Environmental Protection Agency inspection team. The eighteen samples were collected and analyzed for metals, volatiles, semi-volatiles and dioxins. The collection of samples at the eighteen sample locations was based on receptors of contamination and verifying the presence of contaminants on-site. (See Appendix C for detection limits associated with each sample point).

3.4 SOIL SAMPLING PROCEDURES

On July 30 and 31, 1991, Illinois Environmental Protection Agency personnel collected eighteen soil samples for the purpose of determining if contaminants found on-site could also be found off-site in residential yards. (see Figure 3-2 for locations). Table 3-1 on the following page describes each of the soil samples with their location, depth and physical appearance noted. All the residential soil samples were collected within six inches of the surface using stainless steel spoons decontaminated prior to arrival on-site at the Illinois Environmental Protection Agency's warehouse. The soil was transferred directly into the sample jars from the sampling spoons. The on-site soil samples were collected using stainless steel spoons, disposable bailers and a dip sampler, which were all decontaminated prior to arrival on-site at the Illinois Environmental Protection



Source: IEPA, 1991. Base Map: IDOT, 1988 Aerial Photograph.

1" = 200 Feet

FIGURE 3-2 SOIL SAMPLING LOCATIONS

3-5

CERCLA Expanded Site Inspection: Jennison-Wright Corporation



Table 3-1
Soil Sample Descriptions

<u>Sample</u>	<u>Depth</u>	<u>Appearance</u>	<u>Location</u>
X101	0.5 - 5.5"	Dark brown to black fine grained	21 feet 6 inches south and 4 feet 10 inches west from the Non-responsive
X102	0.5 - 6.0"	Dark to light brown fine grained, with some sand	59 feet 5 inches east from the Non-responsive
X103	0.5 - 6.0"	Dark brown to black fine grained	80 feet 2 inches east and 2 Non-responsive
X104	0.5 - 6.0"	Brown to light brown fine grained	55 feet 11 inches east from the Non-responsive
X105	0.5 - 6.0"	Brown to black fine grained, some fill material	57 feet 3 inches east and 2 feet 2 inches south from the Non-responsive
X106	0.5 - 6.0"	Brown to black with some clay and sand grains	53 feet 3 inches east and 6 feet 8 inches north from the Non-responsive
X107	0.5 - 5.5"	Brown to black mostly fill material	44 feet 10 inches east and 16 feet 5 inches north from the Non-responsive
X108	0.5 - 5.5"	Brown to black fine grained with some sand grains	40 feet 3 inches east and 6 feet 10 inches south from the Non-responsive
X109	0.5 - 6.0"	Brown to black fine grained	41 feet 3 inches east and 2 feet 6 inches north from the Non-responsive
X110	0.5 - 6.0"	Brown to black fine grained with some sand grains	21 feet 8 inches east and 7 feet 10 inches south from the Non-responsive

Table 3-1 (cont)
Soil Sample Descriptions

<u>Sample</u>	<u>Depth</u>	<u>Appearance</u>	<u>Location</u>
X111	0.5 - 6.0"	Brown to black fine grained with some sand grains	This sample was a duplicate sample taken at the same Non-responsive
X112	0.5 - 4.5"	Dark brown to black fine grained	96 feet 2 inches northeast of Rock Road and 44 feet 3 inches southeast of Division Street.
X113	0.5 - 6.0"	Dark brown to black sludge	Collected from inside the largest tank on the south side of the facility.
X114	Surface	Brown to light brown fine grained, some fill material	Approximately 15 feet west from the east fence and 100 feet south of the two silos on the south side of the facility.
X115	0.0 - 3.0"	Black to dark brown material	20 feet east from the west fence and 40 feet north of 21st Street on the south side of the facility
X116	About 8' below top of tank car	Black sludge	Collected from the buried tank car located just east of the the two above ground tanks, south of 22nd Street.
X117	Bottom of tank	Dark brown liquid	Collected from the smaller of the two tanks just south of 22nd Street.
X118	About 8" below top of tank car	Black to dark brown sludge	Collected from the above ground tank car on the north side of the facility.

Agency's warehouse.

The soil sample jars were packaged and sealed in accordance with previously documented Pre-Remedial Program procedures. The samples were analyzed for metals, volatiles

and semi-volatiles by Applied Research and Development Laboratories (ARDL) in Mt. Vernon, Illinois. The dioxin analyses were performed by Pacific Analytical, Incorporated of Carlsbad, California. Photographs for the Jennison-Wright expanded site inspection are provided in Appendix B of this report.

3.5 DECONTAMINATION PROCEDURES

Standard Illinois Environmental Protection Agency decontamination procedures were followed prior to the collection of all samples. The procedures included the scrubbing of all equipment (bailers, spoons, pans, etc.) with a non-foaming Trisodium Phosphate solution, rinsing with hot tap water, rinsing with acetone, rinsing with hot tap water again and final rinsed with distilled water. All equipment is air dried, then wrapped and stored in heavy duty aluminum foil for transport to the field. Field decontamination procedures include all of the above except the hot tap water rinse.

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section includes a summary of the analytical results of samples collected during the Expanded Site Inspection conducted at the Jennison-Wright facility in Granite City, Illinois.

4.2 ANALYTICAL RESULTS FROM IEPA COLLECTED SAMPLES

Chemical analysis of eighteen soil samples collected by the site inspection personnel revealed the presence of the following substances: volatiles, semi-volatiles, metals, suspected laboratory artifacts and common inorganic soil constituents. (See Table 4-1 for the summary of the soil sample results). Complete laboratory analytical data for the soil samples are provided in Appendix C of this report. (Dioxin results from Pacific Analytical have not been received at the time of this report, but will be included as an addendum to this report).

Volatiles, semi-volatiles and metals were present in on-site soil samples at concentrations significantly over background readings. The highest concentration found in each category was: 600000 ppb of xylene at the X117 location, 280000000 ppb of naphthalene at the X118 location and 4000 ppm of zinc at the X115 location.

TABLE 4-1

ANALYTICAL SUMMARY

SOIL SAMPLES

LING POINT	X101 07-30-91	X102 07-30-91	X103 07-30-91	X104 07-30-91	X105 07-30-91	X106 07-30-91	X107 07-30-91	X108 07-30-91	X109 07-30-91
VOLATILES									
Methylene Chloride	11.00	13.00 B	13.00	6.00	7.00	--	8.00 B	5.00 JB	4.00 J
Acetone	--	51.00	6.00 J	--	6.00 J	29.00	--	23.00	20.00 B
1,1,1-Trichloroethane	--	--	4.00 J	--	--	--	--	--	--
Trichloroethene	2.00 JB	--	3.00 JB	2.00 JB	3.00 JB	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--
Xylene(total)	--	--	--	--	--	--	--	--	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
SEMI-VOLATILES									
Phenol	--	--	--	--	--	--	--	--	--
2-methylphenol	--	--	--	--	--	--	--	--	--
4-methylphenol	--	--	--	--	--	--	--	--	--
2,4-dimethylphenol	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	1400.00	160.00 J	--	--	--	--	120.00 J
2-Methylnaphthalene	--	--	2000.00	130.00 J	--	--	--	150.00 J	--
Acenaphthylene	--	--	110.00 J	--	94.00 J	--	61.00 J	--	110.00 J
Acenaphthene	--	--	--	96.00 J	--	--	--	--	100.00 J
Dibenzofuran	--	--	78.00 J	110.00 J	--	--	--	84.00 J	97.00 J
Fluorene	--	180.00 J	--	--	--	--	--	83.00 J	130.00 J
Pentachlorophenol	--	--	--	--	--	--	--	--	--
Phenanthrene	610.00	2300.00	390.00 J	920.00	590.00	110.00 J	290.00 J	1400.00	1500.00
Anthracene	120.00 J	520.00	93.00 J	190.00 J	160.00 J	--	66.00 J	230.00 J	260.00 J
Di-n-butylphthalate	--	--	--	100.00 J	--	--	--	--	--
Fluoranthene	1200.00	2900.00	380.00 J	1200.00	1000.00	230.00 J	450.00	1900.00	1700.00
Pyrene	850.00	2200.00	410.00 J	810.00	940.00	210.00 J	380.00	1700.00	1800.00
Butylbenzylphthalate	650.00	--	--	--	--	--	--	--	--
Benzo(a)anthracene	510.00	1500.00	170.00 J	450.00	490.00	120.00 J	160.00 J	900.00	930.00
Chrysene	560.00	1600.00	280.00 J	490.00	680.00	160.00 J	290.00 J	940.00	1000.00
bis(2-Ethylhexyl)phthalate	1100.00	--	110.00 J	220.00 J	240.00 J	130.00 J	170.00 J	220.00 J	320.00 J
Benzo(b)fluoranthene	720.00	2200.00	360.00 J	670.00	870.00	220.00 J	410.00	1100.00	1200.00
Benzo(k)fluoranthene	560.00	1700.00	290.00 J	490.00	620.00	140.00 J	330.00 J	1100.00	1000.00
Benzo(a)pyrene	590.00	1400.00	260.00 J	480.00	590.00	140.00 J	230.00 J	970.00	1000.00
Indeno(1,2,3-cd)pyrene	330.00 J	550.00	220.00 J	210.00 J	270.00 J	--	140.00 J	350.00 J	310.00 J
Benzo(g,h,i)perylene	280.00 J	460.00	210.00 J	200.00 J	260.00 J	--	120.00 J	320.00 J	310.00 J
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
INORGANICS									
Aluminum	9500.00	11000.00	7100.00	7600.00	15000.00	15000.00	11000.00	9600.00	8000.00
Arsenic	11.00	12.00	21.00	7.20	11.00	9.60	7.40	12.00	10.00
Barium	220.00	250.00	230.00	130.00	260.00	230.00	210.00	210.00	160.00
Beryllium	5.60	6.10	53.00	4.70	7.90	6.80	2.50	1.90	1.30
Cadmium	1.90	1.60	--	1.30	2.20	1.10	3.50	2.10	2.30
Calcium	8800.00	5900.00	4200.00	38000.00	9800.00	5700.00	32000.00	4200.00	4400.00
Chromium	12.00	14.00	--	23.00	27.00	14.00	27.00	13.00	11.00
Cobalt	11.00	[10.00]	23.00	11.00	16.00	12.00	9.60	[9.40]	[7.40]
Copper	59.00	38.00	37.00	24.00	42.00	25.00	47.00	38.00	23.00
Iron	23000.00	19000.00	180000.00	16000.00	25000.00	21000.00	19000.00	21000.00	12000.00
Lead	460.00	360.00	440.00	160.00	400.00	170.00	460.00	290.00	440.00
Magnesium	2700.00	3500.00	1600.00	19000.00	4200.00	3800.00	3400.00	2500.00	2300.00
Manganese	580.00	420.00	1100.00	710.00	1000.00	560.00	1100.00	440.00	350.00
Mercury	0.11	0.16	0.38	--	0.15	0.08	0.09	0.11	0.08
Nickel	22.00	23.00	22.00	18.00	38.00	25.00	20.00	22.00	17.00
Potassium	2200.00	2200.00	1700.00	1200.00	2800.00	2700.00	1800.00	2000.00	1600.00
Selenium	--	--	--	--	--	--	1.50	--	--
Silver	--	--	--	--	--	--	--	--	--
Sodium	[980.00]	[1100.00]	--	--	1300.00	1300.00	1100.00	--	--
Thallium	--	--	--	--	--	--	--	--	--
Vanadium	25.00	27.00	[11.00]	28.00	37.00	27.00	25.00	26.00	19.00
Zinc	410.00	400.00	770.00	150.00	600.00	260.00	470.00	300.00	300.00
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
TENTATIVELY IDENTIFIED COMPOUNDS									
1,1,2-trifluoroethane	8.00 J	21.00 J	11.00 J	5.00 J	9.00 J	6.00 J	12.00 J	12.00 J	79.00 J
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--
Hexadecanoic acid	260.00 J	--	--	--	--	200.00 J	--	560.00 J	510.00 J
3-methyl-phenanthrene	--	270.00 J	--	--	--	--	--	--	--
Benzo(b)naphtho[1,2-d]-thiophene	--	310.00 J	--	--	--	--	--	--	--
Eicosane	--	--	--	210.00 J	--	--	--	--	--
Hexadecane	--	--	--	--	--	--	--	230.00 J	--
9,10-Anthracenedione	--	--	--	--	--	--	--	--	600.00 J
2-ethenyl-naphthalene	--	--	--	--	--	--	--	--	--
4-methyl-dibenzofuran	--	--	--	--	--	--	--	--	--
Dibenzothiophene	--	--	--	--	--	--	--	--	--
OH- Carbazole	--	--	--	--	--	--	--	--	--
cahydro-2-methyl-naphthalene	--	--	--	--	--	--	--	--	--
6,10,15-tetramethyl-heptadecane	--	--	--	--	--	--	--	--	--
Docosane	--	--	--	--	--	--	--	--	--
Isoquinoline	--	--	--	--	--	--	--	--	--
1,2-Benzenedicarboxylic acid	--	--	--	--	--	--	--	--	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)

TABLE 4-1
ANALYTICAL SUMMARY

SAMPLING POINT	SOIL SAMPLES								
	X110 07-30-91	X111 07-30-91	X112 07-30-91	X113 07-31-91	X114 07-31-91	X115 07-31-91	X116 07-31-91	X117 07-31-91	X118 07-31-91
VOLATILES									
Methylene Chloride	8.00 B	11.00 B	37.00 B	51000.00 B	88.00	8100.00 JB	140.00 B	25000.00 JB	22000.00 B
Acetone	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	150000.00	--	--	120.00	180000.00	22000.00
Toluene	--	--	--	180000.00	--	93000.00	470.00	360000.00	40000.00
Ethylbenzene	--	--	--	92000.00	--	--	280.00	340000.00	34000.00
Xylene (total)	--	--	--	280000.00	--	--	2200.00	600000.00	110000.00
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
SEMIVOLATILES									
Phenol	--	--	--	3200000.00 J	--	--	--	920000.00	--
2-methylphenol	--	--	--	940000.00 J	--	--	--	640000.00	--
4-methylphenol	--	--	--	--	--	--	--	1900000.00	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	1900000.00	--
Naphthalene	--	--	--	11000000.00 D	110000.00 J	--	170000.00	8900000.00 D	28000000.00
2-Methylnaphthalene	--	--	--	20000000.00	--	--	220000.00	14000000.00 JB	42000000.00 J
Acenaphthylene	--	--	--	2000000.00 J	73000.00 J	--	--	1400000.00	--
Acenaphthene	--	--	--	31000000.00	130000.00 J	--	190000.00	23000000.00 D	70000000.00
Dibenzofuran	--	--	--	23000000.00	--	--	110000.00	14000000.00 JB	47000000.00 J
Fluorene	--	--	--	35000000.00	110000.00 J	--	190000.00	19000000.00 JB	60000000.00 J
Pentachlorophenol	--	--	--	--	--	2800000.00	190000.00 J	--	--
Phenanthrene	1200.00	1100.00	--	97000000.00 D	980000.00	--	640000.00	61000000.00 D	200000000.00
Anthracene	--	240.00 J	--	85000000.00 D	400000.00 J	--	190000.00	--	25000000.00 J
Di-n-butylphthalate	--	--	--	--	--	--	--	--	--
Fluoranthene	1600.00	1400.00	--	46000000.00	1900000.00	--	1200000.00	28000000.00 D	98000000.00
Pyrene	1400.00	1200.00	--	31000000.00	1500000.00	--	1100000.00	21000000.00 D	63000000.00
Butylbenzylphthalate	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	740.00 J	680.00 J	--	8600000.00	890000.00	--	240000.00	4900000.00 JB	15000000.00 J
Chrysene	1200.00	1100.00	--	11000000.00	1400000.00	--	440000.00	4600000.00 JB	18000000.00 J
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	810.00	850.00	--	3200000.00 J	1100000.00	--	280000.00	1400000.00 JB	--
Benzo(k)fluoranthene	670.00 J	790.00	--	3800000.00 J	1000000.00	--	170000.00	1700000.00	--
Benzo(a)pyrene	640.00 J	590.00 J	--	3900000.00	1000000.00	--	120000.00	2900000.00	--
Indeno(1,2,3-cd)pyrene	540.00 J	530.00 J	--	1800000.00 J	860000.00	--	130000.00	560000.00	--
Benzo(g,h,i)perylene	450.00 J	660.00 J	--	1700000.00 J	800000.00	--	94000.00	440000.00	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
INORGANICS									
Aluminum	15000.00	14000.00	21000.00	1200.00	25000.00	9500.00	4700.00	52.00	670.00
Arsenic	13.00	11.00	7.80	11.00	18.00	6.20	2.50	1.00	4.70
Barium	270.00	280.00	230.00	[17.00]	120.00	290.00	110.00	[1.70]	[12.00]
Beryllium	2.00	2.00	1.70	--	2.20	2.10	0.52	--	--
Cadmium	3.20	3.30	0.84	5.00	3.10	1.40	--	--	--
Calcium	22000.00	24000.00	5300.00	2100.00	38000.00	32000.00	28000.00	[120.00]	[700.00]
Chromium	17.00	16.00	7.00	10.00	72.00	25.00	13.00	2.90	6.50
Cobalt	13.00	13.00	14.00	--	14.00	8.40	5.50	--	--
Copper	42.00	44.00	25.00	16.00	78.00	61.00	23.00	11.00	--
Iron	24000.00	25000.00	24000.00	2400.00	37000.00	25000.00	8500.00	110.00	2000.00
Lead	460.00	470.00	120.00	290.00	530.00	190.00	37.00	2.10	8.90
Magnesium	9200.00	9500.00	4800.00	[620.00]	4200.00	5000.00	7900.00	[29.00]	[130.00]
Manganese	630.00	620.00	720.00	67.00	930.00	840.00	670.00	4.60	29.00
Mercury	0.12	0.10	--	3.30	0.30	0.09	0.21	--	0.23
Nickel	28.00	28.00	27.00	--	26.00	46.00	9.00	--	--
Potassium	2800.00	2900.00	3700.00	[770.00]	1600.00	710.00	820.00	--	--
Selenium	--	--	--	2.00	1.90	--	--	--	--
Silver	--	--	--	[3.50]	--	--	--	--	--
Sodium	[340.00]	--	[120.00]	[420.00]	[630.00]	[480.00]	540.00	[92.00]	[750.00]
Thallium	--	--	--	--	2.80	--	--	--	--
Vanadium	29.00	30.00	30.00	[4.70]	58.00	23.00	18.00	--	--
Zinc	600.00	630.00	170.00	340.00	590.00	4000.00	110.00	13.00	66.00
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
TENTATIVELY IDENTIFIED COMPOUNDS									
1,2,2-trifluoroethane	15.00 J	12.00 J	16.00 J	19000.00 J	37.00 J	14000.00 J	--	160000.00 J	--
Trichlorofluoromethane	15.00 J	--	--	--	--	--	--	--	40000.00 J
Hexadecanoic acid	--	--	--	--	--	--	--	--	--
3-methyl-phenanthrene	--	--	--	--	--	--	--	--	--
Benzo[b]naphtho[1,2-d]-thiophene	--	--	--	--	--	--	--	--	--
Eicosane	--	--	--	--	--	--	--	--	--
Hexadecane	--	--	--	--	--	--	--	--	--
9,10-Anthracenedione	--	--	--	--	--	--	--	--	--
2-ethenyl-naphthalene	--	--	--	5400000.00 J	--	--	--	--	--
4-methyl-dibenzofuran	--	--	--	2200000.00 J	--	--	--	--	--
Dibenzothiophene	--	--	--	6500000.00 J	--	--	--	--	--
9H-Carbazole	--	--	--	38000000.00 J	--	--	--	--	--
ahydro-2-methyl-naphthalene	--	--	--	--	--	1500000.00 J	--	--	--
1,10,15-tetramethyl-heptadecane	--	--	--	--	--	1400000.00 J	--	--	--
osane	--	--	--	--	--	1200000.00 J	--	--	--
Isoquinoline	--	--	--	--	--	--	--	140000.00 J	--
1,2-Benzenedicarboxylic acid	--	--	--	--	--	--	--	96000.00 J	--
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)

ORGANIC DATA REPORTING QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. This flag is used either when estimating a concentration for TICs where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the CRDL.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides greater than or equal to 10 ng/ul in the final extract shall be confirmed by GC/MS.
- B - This flag is used when the analyte is found in the blank as well as the sample. This flag must be used for a TIC as well as for a positively identified compound.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form 1 for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate forms 1. The Form 1 for the diluted sample shall have the "DL" suffix appended to the lab sample number and the EPA sample number.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is reanalyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number (both lab and EPA) on the Form 1 for the diluted sample, and all concentration values reported on that Form 1 are flagged with the "D" flag.

INORGANIC DATA REPORTING QUALIFIERS

- [] - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA), F (for furnace), CV (for Cold Vapor) and BH (for Borohydride).
- U - Indicates the element was analyzed for but not detected. Report the detection limit value (e.g., 10U).
- E - Indicates a value estimated or not reported due to the presence or interference
- s - Indicates a value determined by Method of Standard Addition.
- N - Indicates spike sample recovery is not within control limits.
- * - Indicates duplicate analysis is not within control limits.
- + - Indicates the correlation coefficient for method of standard addition is less than 0.995.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section includes data and information that may be useful in analyzing Jennison-Wright's impact on the four migration pathways identified in CERCLA's hazard ranking system (HRS). The migration pathways which will be analyzed in this section include groundwater, surface water, air and soil exposure.

5.2 GROUNDWATER

Groundwater samples were collected from on-site monitor wells during an investigation by Woodward-Clyde Consultants, in February 1988, for the Jennison-Wright Company. Analytical results from the February sampling of monitor wells on-site indicated an observed release of contaminants to the groundwater at the site. The analytical results revealed the following contaminants:

Table 5-1
1988 Monitor Well Results

	<u>WWC-05s</u>	<u>WWC-09s</u>
Toluene	830 ppb	330 ppb
Phenol	9800 ppb	260 ppb
2-methylphenol	5100 ppb	480 ppb
Naphthalene	3400 ppb	5500 ppb
4-methylphenol	16000 ppb	1100 ppb
2,4-dimethylphenol	2800 ppb	640 ppb
Pentachlorophenol	ND	100 ppb

The geology of the Granite City area is characterized by an unsaturated zone consisting of fill material and silty clays. (This surface material is moderately permeable, with soil contamination documented down to groundwater, which is found at 20 feet). Underlying the silty clays are interbedded layers of sands and clays down to 20 feet, with medium, coarse and fine sands and gravels from 20 feet to limestone at 115 feet below the surface. The approximate 95 feet of sands and gravels is the major aquifer in this area.

Granite City obtains water from surface water intakes on the Mississippi River (Illinois American Water Company), but many industries and residences obtain water from the sand and gravel aquifer. According to the Illinois EPA Division of Public Water Supplies, there are no known public wells within four miles of this site. The number of private wells using groundwater for drinking within four miles and the approximate number of users in each distance category, are identified below.

Table 5-2

<u>Distance</u>	<u>Private Wells</u>	<u>Total Population*</u>
0-1/4 mile	0	0
1/4-1/2 mile	3	8
1/2-1 mile	5	13
1-2 miles	55	144
2-3 miles	45	118
3-4 miles	100	263

Private wells were multiplied by 2.63 people per household

average for Madison County.

No wellhead protection areas (as designated by Section 1428 of the Safe Drinking Water Act) exist within the four mile target distance from the site.

5.3 SURFACE WATER

No surface water samples were collected during the July 30 and 31, 1991 Expanded Site Inspection of the Jennison-Wright site, but there is the potential for water to run-off the site into a railroad ditch on the northeast side of the facility. The railroad ditch does not flow into any streams, lakes or rivers, but appears to pond in this area until the water evaporates or infiltrates into the ground. The railroad ditch is not identified as a wetland according to U.S. Fish and Wildlife wetland inventory maps for Granite City, Illinois. However, according to the Flood Insurance Rate map for Granite City, Illinois, a portion of the Jennison-Wright facility is located within the 100 year flood zone.

The potential does exist for the release of contaminants to surface water by the groundwater route, due to the presence of contaminants in the groundwater on-site. The closest body of water to the site is the Chain of Rocks Canal located approximately 1 mile west of the site.

5.4 SOIL EXPOSURE

Residential soil samples taken during the Expanded Site Inspection indicate an observed release to the soil exposure pathway by contaminants that are attributable to the site. The compounds found three times background concentrations or above detection limits, in the top two feet, are shown below in Table 5-3 and are compared to the background soil sample, X112.

Table 5-3

Soil Sample Results

<u>Compound</u>	<u>Soil Sample #</u>	<u>Concentration</u>	<u>Background Concentration</u>
Naphthalene	X103	1400 ppb	770 ppb
2-methylnaphthalene	X103	2000 ppb	770 ppm
Phenanthrene	X102	2300 ppb	770 ppb
fluoranthene	X102	2900 ppb	770 ppb
pyrene	X102	2200 ppb	770 ppb
Benzo(a)anthracene	X102	1500 ppb	770 ppb
Chrysene	X102	1600 ppb	770 ppb
Benzo(b)fluoranthene	X102	2200 ppb	770 ppb
Benzo(k)fluoranthene	X102	1700 ppb	770 ppb
Benzo(a)pyrene	X102	1400 ppb	770 ppb
Chromium	X105	27 ppm	7 ppm
Zinc	X103	770 ppm	170 ppm

The concentrations of benzo(a)pyrene detected in residential soil samples X102, X108 and X109 are over the Level I benchmark concentration of 0.051 parts per million for the compound. The resident population at each sample point is four residents at X102, ten residents at X108 and eleven residents at X109. The remaining residential properties contained concentrations of compounds over background or lie between points of Level I concentrations. The resident population at the remaining sample locations or

between sample locations is 67. All residential samples were collected within 200 feet of the homes and within the top six inches of soil.

No workers are currently on-site and there are no designated terrestrial sensitive environments nearby. The site is surrounded by a fence, but access is not totally restricted. The site has a total of 26 acres, with approximately 20 acres or 900,000 square feet of contamination at the site. The population within one mile of the site by distances is:

0-1/4 mile	3567
1/4-1/2 mile	4687
1/2-1 mile	7188

5.5 AIR

No documented releases to the air were observed during the CERCLA Expanded Site Inspection. A photoionization detector (HNU) with an 11.7 eV lamp was used to determine the presence of certain air-borne contaminants. Readings in the breathing zone varied from below background to 5 meter units over background. HNU readings inside the tank cars and above ground tanks indicated reading from as low as 15 meter units to as high as 35 meter units over background.

The potential for windblown particulates to carry contaminants off-site is possible since contaminants were found in the top six inches of soil on-site. The contaminants found in surface soils at analytically

significant levels are depicted in Table 5-3. The nearest regularly occupied residence is located less than 500 feet from on-site documented soil samples. The approximate number of individuals potentially exposed to particulates include:

Table 5-4

Populations Within Four Miles

<u>Distance</u>	<u>Population</u>
On a source	0
Greater than 0 to 1/4 mile	3567
Greater than 1/4 to 1/2 mile	4687
Greater than 1/2 to 1 mile	7188
Greater than 1 to 2 miles	19798
Greater than 2 to 3 miles	13686
Greater than 3 to 4 miles	11530

The above populations were taken from the 1990 census for Granite City, Madison, Venice, Brooklyn and a 2.63 people per household average for Madison County as established by the U.S. Census Bureau. Populations of schools, nursing homes and workers of industries potentially exposed to contamination were added to individual house counts and the city populations (USGS topographic maps and U.S. Census Bureau).

Sensitive environments within four miles of the Jennison-Wright facility consist of wetlands, state endangered and threatened species, federally threatened

species and habitat known to be used by state and federally designated species. Between two and three miles from the site the following sensitive environments (except wetlands) were identified by the Illinois Department of Conservation: state endangered Pied-billed Grebe and Yellow-headed Blackbird and the state threatened Common Moorhen. The sensitive environments (excepts wetlands) identified within three to four miles of the site include: federally threatened Decurrent False Aster Boltonia decurrens, and state endangered Black-crowned Night Herons, Little Blue Herons, Great Egrets, and Snowy Egrets.

A number of wetland areas have been identified by the U.S. Department of Interior, Fish and Wildlife Service on wetland inventory maps of the area. The wetland acreage and distances from the site are given below:

Table 5-5

Wetland Areas Within Four Miles

<u>Distance</u>	<u>Number of Wetlands</u>	<u>Total Acreage</u>
On a source	0	0
Greater than 0 to 1/4 mile	0	0
Greater than 1/4 to 1/2 mile	1	2
Greater than 1/2 to 1 mile	11	33
Greater than 1 to 2 miles	17	104
Greater than 2 to 3 miles	21	221
Greater than 3 to 4 miles	34	374

6. BIBLIOGRAPHY

Austin, Denver, August 1977, Evolution of Heavy Manufacturing in Granite City, Illinois 1896 to 1973, Thesis, Southern Illinois University - Edwardsville, Illinois.

Ecology & Environment, Inc., January 18, 1985, Compliance Investigation Report -- The Jennison-Wright Corporation Wood Treatment Facility, Granite City, Illinois.

Federal Emergency Management Agency, 1985, Flood Insurance Rate Map for Granite City, Illinois, Madison County, Panel Number 170443 0004 A.

Illinois Department of Conservation, August 8, 1991, Letter from Mr. Richard Lutz to Mr. Greg Dunn of the Illinois Environmental Protection Agency concerning sensitive environments near the Union Mechling site.

Illinois Department of Energy and Natural Resources, State Water Survey, water well records of wells in Madison County, T.3N. R.9W., T.3N. R.10W., T.4N R.9W. and T.4N. R.10W.

Illinois Environmental Protection Agency, 1989, CERCLA Screening Site Inspection for Jennison-Wright Corporation, ILD006282479, prepared by Gregory Dunn, Springfield, IL.

Illinois Environmental Protection Agency, Division of Land Pollution Control, files for Jennison-Wright Corporation ILD006282479.

Title & Escrow Service, Inc., November 28, 1990 letter to Mr. Mike McCabe of the Illinois EPA concerning title search of Jennison-Wright facility.

U.S. Census Bureau, 1990, Average persons per household in Madison County, Illinois.

U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map for Columbia Bottom, MO-IL.

U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map for Granite City, IL-MO.

U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map for Monks Mound, IL.

U.S. Department of the Interior, Fish and Wildlife Service,
National Wetlands Inventory Map for Wood River, IL-MO.

USGS, 1974, Columbia Bottom, MO-IL Quadrangle, 7.5 Minute
Series.

USGS, 1982, Granite City, IL-MO Quadrangle, 7.5 Minute
Series.

USGS, 1974, Monks Mound, IL Quadrangle, 7.5 Minute Series.

USGS, 1974, Wood River, IL-MO, Quadrangle, 7.5 Minute Series.

Woodward-Clyde Consultants, August 1988, Site Assessment
Report, The Jennison-Wright Corporation Facility,
Granite City, Illinois.

APPENDIX A

SITE 4-MILE RADIUS MAP

APPENDIX B

IEPA SITE PHOTOGRAPHS

Non-responsive

1" = 200 Feet

PHOTOGRAPH LOCATION MAP

N

DATE: July 30, 1991

TIME: 8:50 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 1

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: SSW

COMMENTS: Photo of sample

Non-responsive

Avenue. Photo looking from

southeast side of house.



DATE: July 30, 1991

TIME: 8:50 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 2

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NE

COMMENTS: Photo of sample

Non-responsive

Avenue. Photo looking

toward Jennison-Wright.



DATE: July 30, 1991

TIME: 9:20 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 3

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NE

COMMENTS: Photo of sample

Non-responsive

Avenue. Two silos are on

Jennison-Wright property.



DATE: July 30, 1991

TIME: 9:20 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 4

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample

Non-responsive

Avenue. Photo looking

toward the house.



DATE: July 30, 1991

TIME: 9:50 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 5

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: SSW

COMMENTS: Photo behind the

Non-responsive

Avenue, which was sample

point X103.



DATE: July 30, 1991

TIME: 9:50 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 6

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo of sample

Non-responsive

toward Jennison-Wright.



DATE: July 30, 1991

TIME: 10:25 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 7

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

Non-responsive

Avenue. Jennison-Wright is
in the background.



DATE: July 30, 1991

TIME: 10:25 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 8

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample

Non-responsive

Avenue. House is in the
background.



DATE: July 30, 1991

TIME: 10:55 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 9

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample

Non-responsive

Avenue, looking toward the
back of the house.



DATE: July 30, 1991

TIME: 10:55 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 10

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: ESE

COMMENTS: Photo of sample

Non-responsive

Avenue. Jennison-Wright is
in the background.



DATE: July 30, 1991

TIME: 11:40 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 11

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo at sample

Non-responsive



DATE: July 30, 1991

TIME: 11:40 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 12

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

Non-responsive



Avenue. Looking toward the
back of the house.

DATE: July 30, 1991

TIME: 1:45 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 13

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo taken toward

Non-responsive

Avenue.



DATE: July 30, 1991

TIME: 1:45 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 14

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: ENE

COMMENTS: Photo taken of

Non-responsive

Wright is in the background.



DATE: July 30, 1991

TIME: 2:10 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 15

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: WSW

Non-responsive

Avenue, looking toward the
back of the house.



DATE: July 30, 1991

TIME: 2:10 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 16

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

Non-responsive

Avenue, looking toward the
east.



DATE: July 30, 1991

TIME: 2:35 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 17

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: WNW

COMMENTS: Photo taken behind
the apartment building at
Non-responsive



DATE: July 30, 1991

TIME: 2:35 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 18

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo taken behind
Non-responsive



Jennison-Wright.

DATE: July 30, 1991

TIME: 3:20 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 19

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NW

COMMENTS: Photo taken behind

Non-responsive

and duplicate sample X111.



DATE: July 30, 1991

TIME: 3:20 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 20

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: S

COMMENTS: Photo of sample

Non-responsive

Wright is in background.



DATE: July 30, 1991

TIME: 5:15 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 21

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: WNW

COMMENTS: Photo of sample
point X112, corner of Rock
Road and Division Street,
west of Jennison-Wright.



DATE: July 30, 1991

TIME: 5:15 p.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 22

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NE

COMMENTS: Photo of sample
location X112, west of the
site and used as the back-
ground sample location.



DATE: July 31, 1991

TIME: 8:00 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 23

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NW

COMMENTS: Photo of sample

point X113, which was

collected from the large

tank just south of 22nd St.



DATE: July 31, 1991

TIME: 8:00 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 24

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: SE

COMMENTS: Photo of sample

point X113, which was

collected from the large

tank just south of 22nd St.



DATE: July 31, 1991

TIME: 9:20 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 25

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: SSE

COMMENTS: Photo of sample
point X114, on south side of
site. Nestle plant is in
the background.



DATE: July 31, 1991

TIME: 9:20 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 26

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample
point X114, on south side of
site. Residential area is
in the background.



DATE: July 31, 1991

TIME: 9:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 27

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample
point X115, on west side of
the site. Residential area
is in the background.



DATE: July 31, 1991

TIME: 9:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 28

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: S

COMMENTS: Photo of sample
point X115, looking toward
the southern portion of the
Jennison-Wright facility.



DATE: July 31, 1991

TIME: 9:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 29

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample
point X115, looking at the
actual sample appearance in
this area.



DATE: July 31, 1991

TIME: 10:15 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 30

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: S

COMMENTS: Photo taken during
the sampling of X116, the
buried tank car.



DATE: July 31, 1991

TIME: 10:15 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 31

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo of sample
point X116. Sample was
collected from the buried
tank car on-site.



DATE: July 31, 1991

TIME: 11:05 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 32

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo of sample
point X117, the smaller of
the two tanks located just
south of 22nd Street.



DATE: July 31, 1991

TIME: 11:05 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 33

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: E

COMMENTS: Photo taken during
the sampling of X117, which
is the smaller of two tanks
south of 22nd Street.



DATE: July 31, 1991

TIME: 11:05 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 34

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo of sample
point X117, the smaller of
two tanks located just south
of 22nd Street.



DATE: July 31, 1991

TIME: 11:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 35

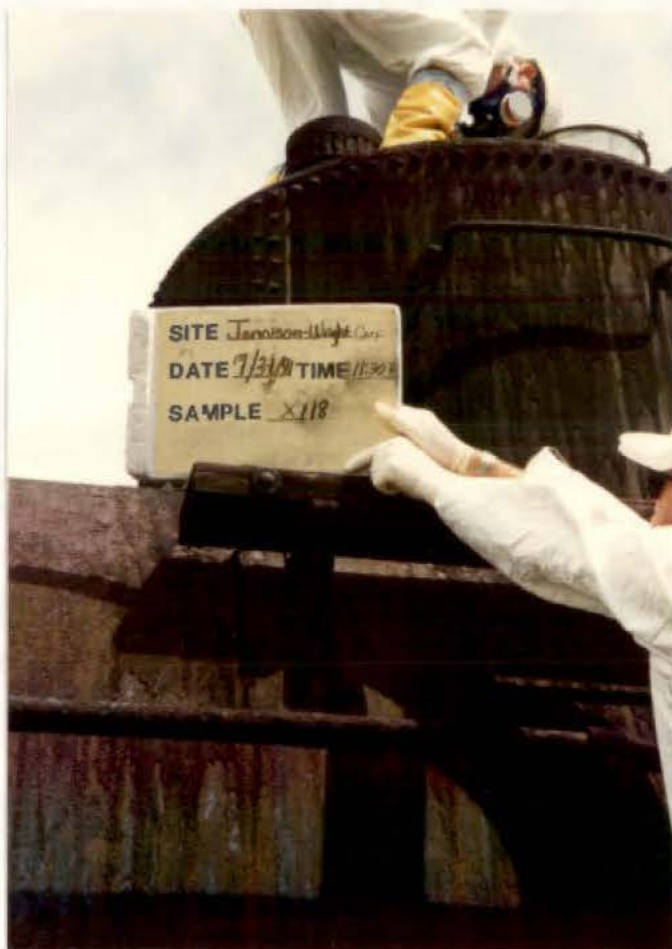
LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: N

COMMENTS: Photo of sample
point X118 on the north side
of the site, from inside the
tank car.



DATE: July 31, 1991

TIME: 11:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 36

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: NE

COMMENTS: Photo taken during
the sampling of X118, from
inside the abandoned tank
car on the north side.



DATE: July 31, 1991

TIME: 11:30 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 37

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: N

COMMENTS: Photo of sample
collected at sampling point
X118 from within the tank
car.



DATE: July 31, 1991

TIME: 8:10 a.m.

PHOTOGRAPH TAKEN BY:

Sheila Murphy

PHOTOGRAPH NUMBER: 38

LOCATION: L1190400008

Jennison-Wright Corporation

ILD006282479

PICTURE TAKEN TOWARD: W

COMMENTS: Photo taken of the
gloves used to sample the
larger tank south of 22nd
Street, sample X113.

